II. CLAIM AMENDMENTS

1.   (Currently Amended) A light pipe comprising:

    a first surface, said surface including <u>integrated</u> surface
    formation patterns having diffractive properties for
    coupling light out from the light pipe to provide
    backlighting of a flat-panel display, said surface formation
    patterns comprising uniform, mutually different areas~~,~~ <u>and</u>
    <u>being manufactured directly into</u> ~~distributed over~~ said first
    surface;

    wherein the areas comprise first pixel-like formations having a
        first orientation and second pixel-like formations having a
        second orientation being different than that of the first
        pixel-like formations orientation, said pixel-like
        formations being arranged to diffract light for producing
        uniform lighting and to produce substantially uniform light
        out from the light pipe regardless of the distance from a
        light input end of the light pipe.

2.   (Previously Presented) A light pipe according to claim 1
wherein

    said patterns comprise parallel elongated surface formations,

    said patterns comprise a first uniform area, in which a
        characteristic parameter has a first value;

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said patterns comprise a second uniform area, in which said
characteristic parameter has a second value, which differs
from said first value;

and the surface formations in said first area differ from the
surface formations in said second area with regard to said
characteristic parameter, and said characteristic parameter
is at least one of the following: orientation of the
pattern, period length, fill factor, fill ratio, height,
characteristic degree of modification, angle of deflection
between the elongated surface formations of the pattern.

3.(Previously Presented) A light pipe according to claim 2,
wherein the value of at least one characteristic parameter
depends on a value defined in relation to the light source.

4. (Previously Presented) A light pipe according to claim 2,
wherein the elongated patterns of the surface formations change
gradually from first shapes at a first end of the pattern at a
light source side to other shapes at an opposite side of said
pattern at another end in a manner depending on a quantity, which
is dependent on a relation to the light source.

5. (Previously Presented) A light pipe according to claim 2,
wherein a local plane in the area of a pattern, which plane is
determined by peaks of the surface formations of the patterns, is
at an angle in relation to a plane determined by the first
surface of the light pipe.

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6. (Previously Presented) A light source according to claim 2, wherein at least one of the patterns has a fill ratio, and the fill ratio increases when moving from the end at the side of the light source to the opposite end of the light pipe.

7. (Previously Presented) A light source according to claim 1, wherein distribution of the patterns depends on a quantity which is dependent on a relation to the light source.

8. (Previously Presented) A light pipe according to claim 1, wherein said first surface is on a side of the light pipe, which is closest to the display.

9. (Previously Presented) A light pipe according to claim 1, wherein elongated shapes of surface formations in the patterns are repeated in a uniform area of the surface of the light pipe.

10. (Previously Presented) A light source according to claim 1, wherein at least one of the patterns has a fill ratio, the fill ratio increases along a central line of the light pipe from an end at the side of the light source to an opposite end of the light pipe, and the pattern has elongated formations, which are perpendicular to the central line.

11. (Previously Presented) A light source according to claim 1, wherein the pattern has a fill ratio between 0.2 and 0.5.

12. (Previously Presented) A light pipe according to claim 1, wherein at least one of the patterns has a fill ratio, the fill ratio increases as measured along a straight line when moving away from the light source, and the pattern has elongated surface formations, which are bowed, whereby the midpoint defined by the dimensions of the light source is located essentially at a focal point characterizing the bow.

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13. (Currently Amended) A light pipe according to claim **1** 2, wherein at least one pattern has a diffractive structure with a period length between 1.5 and 3.5 μm.

14. (Previously Presented) A light pipe according to claim 1, wherein depth and/or height of elongated surface formations of the surface is between 0.3 and 0.7 μm.

15. (Previously Presented) A light pipe according to claim 1, wherein the light pipe has a polygonal shape, with at least one angle between adjacent sides, which differs substantially from 90°.

16. (Original) A light pipe according to claim 1, wherein the light pipe has fluorescent and/or phosphorescent properties.

17. (Currently Amended) A light pipe arrangement comprising:
a light source,

a display,

a light pipe, and

a base plate of the light pipe,

wherein

> the light pipe is limited by a first surface, said surface
> including integrated surface formation patterns, said
> patterns have diffractive properties for coupling the light
> out from the light pipe to provide backlighting of the
> display, said surface formation patterns comprise uniform,
> mutually different areas with a distribution over and being
> manufactured directly into said first surface; and

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wherein the areas comprise first pixel-like formations having a first orientation and second pixel-like formations having a second orientation being different than that of the first pixel-like formations orientation, said pixel-like formations being arranged to diffract the light for producing uniform lighting and to produce substantially uniform light out from the light pipe regardless of the distance from a light input end of the light pipe.

18. (Previously Presented) A light pipe arrangement according to claim 17, comprising two further light sources.

19. (Previously Presented) A light pipe according to claim 1, wherein the diffractive patterns have a geometry which is varied with position on said light pipe so that brightness of light is constant with position along said light pipe.

20. (Previously Presented) A light pipe according to claim 1, wherein the diffractive patterns have a fill factor which is varied with position on said light pipe so that brightness of light is constant with position along said light pipe.

21. (Previously Presented) A light pipe arrangement according to claim 17, wherein the diffractive patterns have a geometry which is varied with position on said light pipe so that brightness of light is constant with position along said pipe.

22. (Previously Presented) A light pipe arrangement according to claim 17, wherein the diffractive patterns have a fill factor which is varied with position on said light pipe so that brightness of light is constant with position along said pipe.

23. - 31.   (Cancelled)

32.   (Previously Presented) A light pipe comprising:

a first surface, said surface including patterns having
diffractive properties for coupling light out from the light
pipe to provide backlighting of a flat-panel display, said
patterns comprising uniform, mutually different areas
distributed on said first surface;

wherein the areas comprise first pixel-like formations having a
first orientation and second pixel-like formations having a
second orientation being different than that of the first
pixel-like formations orientation, said pixel-like
formations being arranged to diffract light for producing
uniform lighting and to produce substantially uniform light
out from the light pipe regardless of the distance from a
light input end of the light pipe;

said patterns comprise parallel elongated surface formations,
the height and width of which differ from the environment,

said patterns comprise a first uniform area, in which a
characteristic parameter has a first value;

said patterns comprise a second uniform area, in which said
characteristic parameter has a second value, which differs
from said first value;

the surface formations in said first area differ from the
surface formations in said second area with regard to said
characteristic parameter, and said characteristic parameter

is at least one of the following: orientation of the
pattern, period length, fill factor, fill ratio, height,
characteristic degree of modification, angle of deflection
between the elongated surface formations of the pattern; and

a local plane in the area of a pattern, which plane is
determined by peaks of the surface formations of the
patterns, is at an angle in relation to a plane determined
by the first surface of the light pipe.

33. (Previously Presented) A light pipe comprising:

a first surface, said surface including patterns having
diffractive properties for coupling light out from the light
pipe to provide backlighting of a flat-panel display, said
patterns comprising uniform, mutually different areas
distributed on said first surface;

wherein the areas comprise first pixel-like formations having a
first orientation and second pixel-like formations having a
second orientation being different than that of the first
pixel-like formations orientation, said pixel-like
formations being arranged to diffract light for producing
uniform lighting and to produce substantially uniform light
out from the light pipe regardless of the distance from a
light input end of the light pipe;

said patterns comprise parallel elongated surface formations,

said patterns comprise a first uniform area, in which a
characteristic parameter has a first value;

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said patterns comprise a second uniform area, in which said characteristic parameter has a second value, which differs from said first value;

the surface formations in said first area differ from the surface formations in said second area with regard to said characteristic parameter, and said characteristic parameter is at least one of the following: orientation of the pattern, period length, fill factor, fill ratio, height, characteristic degree of modification, angle of deflection between the elongated surface formations of the pattern; and

at least one pattern has a diffractive structure with a period length between 1.5 and 3.5 μm.

34.   (Previously Presented) A light pipe comprising:

a first surface, said surface including patterns having diffractive properties for coupling light out from the light pipe to provide backlighting of a flat-panel display, said patterns comprising uniform, mutually different areas distributed on said first surface;

wherein the areas comprise first pixel-like formations having a first orientation and second pixel-like formations having a second orientation being different than that of the first pixel-like formations orientation, said pixel-like formations being arranged to diffract light for producing uniform lighting and to produce substantially uniform light out from the light pipe regardless of the distance from a light input end of the light pipe; and

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the depth and/or height of elongated surface formations of the surface is between 0.3 and 0.7 μm.

35.   (Previously Presented) A light pipe comprising:

a first surface, said surface including patterns having diffractive properties for coupling light out from the light pipe to provide backlighting of a flat-panel display, said patterns comprising uniform, mutually different areas distributed on said first surface;

wherein the areas comprise first pixel-like formations having a first orientation and second pixel-like formations having a second orientation being different than that of the first pixel-like formations orientation, said pixel-like formations being arranged to diffract light for producing uniform lighting and to produce substantially uniform light out from the light pipe regardless of the with distance from a light input end of the light pipe; and

the light pipe has a polygonal shape, with at least one angle between adjacent sides, which differs substantially from 90°.